

## Title (en)

Method for continuously producing low-oxygen copper wire

## Title (de)

Verfahren zur kontinuierlichen Herstellung von Kupferdraht mit niedrigem Sauerstoffgehalt

## Title (fr)

Procédé pour la production continue de fil en cuivre à teneur d'oxygène abaissée

## Publication

**EP 1598433 A1 20051123 (EN)**

## Application

**EP 05017856 A 20010221**

## Priority

- EP 01103599 A 20010221
- JP 2000048005 A 20000224
- JP 2000109827 A 20000411
- JP 2000109828 A 20000411
- JP 2000207488 A 20000707
- JP 2000207490 A 20000707
- JP 2000356325 A 20001122
- JP 2000356326 A 20001122

## Abstract (en)

A method for manufacturing a low-oxygen copper wire (23b) is provided, in which a dehydrogenating treatment can be performed without ensuring a long moving distance of molten copper, and the generation of holes in solidification is suppressed, whereby high quality low-oxygen copper wire (23b) can be obtained having superior surface quality. The method for continuously manufacturing ingots (23a) of low-oxygen copper from molten copper comprises a step of performing combustion in a reducing atmosphere in a melting furnace (A) so as to produce molten copper; a step of sealing the molten copper in a non-oxidizing atmosphere in a casting trough (C); a step of transferring the molten copper to a turn-dish (5a) by using the casting trough (C); a degassing step of passing the molten copper through a degassing means provided in the casting trough (C) so as to dehydrogenate the molten copper; a step of continuously feeding the molten copper to a continuous casting machine (D) so as to continuously produce cast copper; and a step of cutting the cast copper into a predetermined length. <IMAGE>

## IPC 1-7

**C22B 15/14**; **B22D 11/00**; **B22D 11/06**; **B22D 11/10**

## IPC 8 full level

**B22D 7/00** (2006.01); **B22D 11/00** (2006.01); **B22D 11/06** (2006.01); **B22D 11/10** (2006.01); **B22D 11/11** (2006.01); **B22D 11/113** (2006.01); **C22B 9/00** (2006.01); **C22B 9/05** (2006.01); **C22B 15/00** (2006.01); **C22B 15/14** (2006.01)

## CPC (source: EP KR US)

**B22D 7/00** (2013.01 - KR); **B22D 11/00** (2013.01 - EP US); **B22D 11/005** (2013.01 - EP US); **B22D 11/0602** (2013.01 - EP US); **B22D 11/11** (2013.01 - EP US); **B22D 11/113** (2013.01 - EP US); **C22B 9/006** (2013.01 - EP US); **C22B 9/05** (2013.01 - EP US); **C22B 15/006** (2013.01 - EP US); **Y10S 29/005** (2013.01 - EP US); **Y10T 29/49988** (2015.01 - EP US); **Y10T 29/49989** (2015.01 - EP US); **Y10T 29/49991** (2015.01 - EP US)

## Citation (search report)

- [Y] GB 2048954 A 19801217 - HITACHI WIRE ROD
- [Y] US 5143355 A 19920901 - IWAMURA TAKURO [JP], et al
- [Y] PATENT ABSTRACTS OF JAPAN vol. 018, no. 578 (C - 1269) 7 November 1994 (1994-11-07)

## Cited by

CN106540962A

## Designated contracting state (EPC)

BE DE FR GB IT SE

## DOCDB simple family (publication)

**EP 1127947 A2 20010829**; **EP 1127947 A3 20020717**; **EP 1127947 B1 20060524**; CA 2337668 A1 20010824; CA 2337668 C 20100720; CA 2337670 A1 20010824; CN 1210416 C 20050713; CN 1247349 C 20060329; CN 1316307 A 20011010; CN 1316534 A 20011010; DE 60113891 D1 20060223; DE 60113891 T2 20060706; DE 60119804 D1 20060629; DE 60119804 T2 20070510; DE 60136977 D1 20090122; EP 1127946 A2 20010829; EP 1127946 A3 20020710; EP 1127946 B1 20051012; EP 1598433 A1 20051123; EP 1598433 B1 20081210; KR 100690253 B1 20070312; KR 100690257 B1 20070312; KR 20010085548 A 20010907; KR 20010085549 A 20010907; US 2001028135 A1 20011011; US 2001029659 A1 20011018; US 2005262968 A1 20051201; US 6589473 B2 20030708; US 6944930 B2 20050920; US 7524356 B2 20090428

## DOCDB simple family (application)

**EP 01103599 A 20010221**; CA 2337668 A 20010223; CA 2337670 A 20010223; CN 01104991 A 20010226; CN 01104992 A 20010226; DE 60113891 T 20010221; DE 60119804 T 20010221; DE 60136977 T 20010221; EP 01103598 A 20010221; EP 05017856 A 20010221; KR 20010009354 A 20010223; KR 20010009355 A 20010223; US 19456805 A 20050802; US 78959401 A 20010222; US 79176701 A 20010226